

(19) World Intellectual Property
Organization
International Bureau



31 MAY 2005



(43) International Publication Date
1 July 2004 (01.07.2004)

PCT

(10) International Publication Number
WO 2004/056089 A2

(51) International Patent Classification⁷: **H04N 5/225**

(21) International Application Number:
PCT/GB2003/005287

(22) International Filing Date: 4 December 2003 (04.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0229096.3 13 December 2002 (13.12.2002) GB

(71) Applicant (for all designated States except US): QINETIQ LIMITED [GB/GB]; Registered Office, 85 Buckingham Gate, London SW1E 6PD (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): FAULKNER, David, Andrew, Alexander [GB/GB]; QinetiQ Limited,

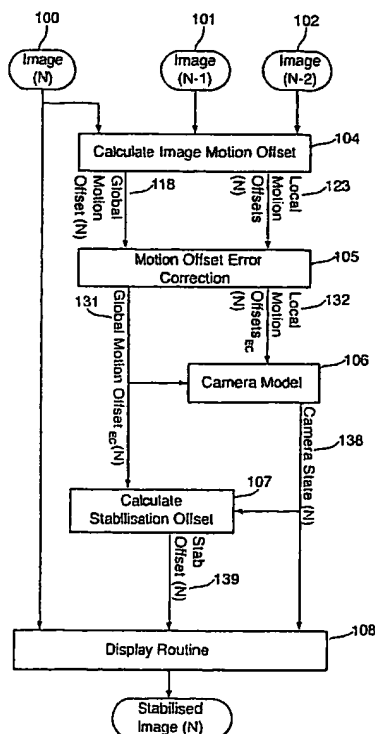
Malvern Technology Centre, Building EX, Room 8, St Andrews Road, Malvern, Worcs. WR14 3PS (GB). PRICE, Gary, Shaun [GB/GB]; QinetiQ Limited, Malvern Technology Centre, Building EX, Room 405, St Andrews Road, Malvern, Worcs. WR14 3PS (GB). KENT, Philip, John [GB/GB]; QinetiQ Limited, Malvern Technology Centre, Building EX, Room 16, St Andrews Road, Malvern, Worcs. WR14 3PS (GB). FRETWELL, Paul [GB/GB]; QinetiQ Limited, Malvern Technology Centre, Building EX, Room 6, St Andrews Road, Malvern, Worcs. WR14 3PS (GB).

(74) Agent: CLARKE, A.; IP QinetiQ Formalities, Cody Technology Park, A4 Building, Room G016, Ively Road, Farnborough, Hampshire GU14 0LX (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,

[Continued on next page]

(54) Title: IMAGE STABILISATION SYSTEM AND METHOD



(57) **Abstract:** A system for stabilising video signals generated by a video camera which may be mounted in an unstable manner includes a digital processing means for manipulation of each incoming image that attempts to overlay features of the current image onto similar features of a previous image. A mask is used that prevents parts of the image that are likely to cause errors in the overlaying process from being used in the calculation of the required movement to be applied to the image. The mask may include areas where small movements of the image have been detected, and may also include areas where image anomalies including excess noise have been detected. The invention also discloses means for dealing with wanted movements of the camera, such as pan or zoom, and also discloses means for dealing with the edges of video signals as processed by the system. A method is also disclosed.

WO 2004/056089 A2